Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Improving Public Safety Communications	)	
in the 800 MHz Band	)	**WT Docket No. 02-55**
	)	
Consolidating the 900 MHz Industrial/Land	)	
Transportation and Business Pool Channels	)	

Comments of Duke Energy Corporation

1. Duke Energy Corporation (Duke), by its counsel, respectfully responds to the Commission's request for comments regarding eliminating interference to public safety operations in the 800 MHz Band. As outlined below, Duke's electric utility systems are part of the nation's critical infrastructure. The telecommunications facilities supporting these systems cannot be disrupted for any amount of time without risking people's lives. Duke supports the Commission's effort to correct the interference problem currently experienced by public safety entities. However, forcing Duke and other utilities to retune to new frequencies is not the proper way to alleviate this problem and is clearly against the public interest. The Commission must direct Nextel, and other parties that are interfering with public safety operations, to discontinue operating sites that are causing interference to other operators and reconfigure their systems to eliminate future interference.

Background

2. Duke is a certified public utility that provides electric power to major portions of North Carolina and South Carolina, including most of the Piedmont regions of North Carolina and South Carolina, which covers approximately 22,000 square miles. Duke operates an integrated

wide-area telecommunications system across its service territory primarily on assignments in the 800 MHz band and maintains the telecommunications infrastructure required to ensure the safe and efficient provision of electricity to more than 2 million customers throughout the Carolinas. Duke's telecommunications system is critical in supporting the safe and reliable provision of electric service during both normal operations and emergency restoration activities. Duke is dedicated to providing highly reliable service to its customers and its telecommunications infrastructure is key to achieving this goal.

3. Duke has been operating its 800 MHz system since 1985. Practically all of the company's radio-equipped vehicles have been upgraded to operate on its 800 MHz trunked system. Duke's system provides the critical priority communications service to its emergency management crews that handle accidents and critical service restorations. The system also provides telecommunications services to Duke personnel responsible for operating the company's power generation facilities, which include nuclear, fossil fuel and hydroelectric plants. Duke Field Services, System Operations and Management Teams also rely upon the system, which supports over 5,000 mobile and portable radios, as well as mobile data terminals. Wireless coverage is provided to over 95 percent of Duke's service territory by 42 trunked and conventional 800 MHz repeater sites.

4. One of the most important features of Duke's system is its dispatch function, which allows messages to be simultaneously directed to specialized groups of radio users or all system users as needed. For example, when electric circuits are being re-energized following temporary power outages, the special dispatch function allows transmission and receipt confirmation of "live line" warning messages for all Duke personnel working in the effected area. With access to

reliable 800 MHz telecommunications facilities with specifically tailored dispatch capabilities, Duke is able to provide safe and reliable electric power service.

Duke's Utility Operations are Part of the Nation's Critical Infrastructure, Which Cannot Be Compromised

5. Duke's power generation facilities, which include nuclear, fossil fuel and hydroelectric plants, are critical to the national infrastructure and the telecommunications infrastructure supporting these facilities is critical to the safety of Duke personnel as well as the general public. In its *Critical Infrastructure Report*, NTIA points out that by executive order, the President has found that "[c]ertain national infrastructures are so vital that their incapacity or destruction would have a debilitating impact on the defense or economic security of the United States…"[1] including power generation facilities. In its report, NTIA concludes that "Energy, water and railroad services are considered vital components of the nation's critical infrastructure."[2] NTIA also states that "[a]ny system disruptions that are not quickly restored pose potential threats not only to public safety, but also to the nation's security."[3]

6. While Duke supports regulatory steps toward eliminating interference to public safety operations, Duke's internal communications capabilities must not be compromised or disrupted. Rather, the Commission should focus on the interference problem being caused by other operators. Disruption of Duke's facilities may result in the loss of life or limb. As outlined

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[1] Marshall W. Ross and Jeng F. Mao, Current and Future Spectrum Use by the Energy, Water, and Railroad Industries, Response to Title II of the Departments of Commerce, Justice and State, the Judiciary and Related Agencies Appropriations Act of 2001 Public Law 106-553, U.S. Department of Commerce, National Telecommunications and Information Administration (Jan. 30, 2002) (hereinafter *Critical Infrastructure Report*) at 3-1, citing Exec. Order No. 13010, 61 Fed. Reg. 37347 (July 15, 1996).

[2] *Critical Infrastructure Report* at 7-1.

[3] *Id.* at 3-3

below, rather than relocating operators who use their 800 MHz systems in support of the nation's critical infrastructure, the Commission must direct interfering entities, such as Nextel, to modify their facilities to eliminate interference to public safety operations. It would be contrary to the public interest for the Commission to require Duke to relocate to new channels and disrupt its critical operations because Nextel is refusing to fix the interference problem.

Licensing Flexibility

7. Duke believes that the Commission should take the opportunity in this proceeding to provide critical infrastructure utilities, such as Duke, with the same licensing flexibility and other rights and protections (*e.g.*, access to exclusive frequencies, separation rights and interference protection from adjacent and co-channel operations) currently afforded to Public Safety operators. As NTIA's *Critical Infrastructure Report* shows, "spectrum usage is an important part of these industries' core operations, ranging from routine maintenance to emergency response."[4] Duke believes that the Commission should make additional spectrum available to critical infrastructure utilities as well as public safety operators.

Relocating Duke's 800 MHz System to the 700 MHz or 900 MHz Bands Would be Very Costly

8. The costs of relocating Duke's 800 MHz system to the 700 MHz or 900 MHz bands would be upwards of Twenty-Five to Thirty Million Dollars. In addition to the relocation costs, such a massive relocation effort would be a logistical nightmare and would cause serious disruptions to Duke's vital telecommunications operations, thereby compromising the safety and reliability of Duke's system and jeopardizing public safety as well as the safety of Duke

[4] *Id*. at 7-3.

personnel.[5] Duke submits that this form of wholesale realignment is an unacceptable way of alleviating the interference to public safety radio systems, particularly if Duke is required to pay the costs of the relocation.

9. Duke is in the final stages of completing the retune of its channels from the upper 200 channels in the 800 MHz band. When the Commission adopted its mandatory relocation rules it stated that retuned entities would not be required to retune again. The Commission believed these limitations were necessary to "protect the operational interests of incumbent licensees who relocate off the upper 10 MHz block. . . [and] that these protections are essential for such incumbents to be able to engage in effective business planning."[6] Duke should not be required to once again retune its radios and repeaters and relocate its operations to new frequencies, especially at its own costs.

10. While Duke does not support a proposal to relocate its 800 MHz operations to the 700 MHz or 900 MHz bands, relocation to new frequencies might be safely accomplished if a fully redundant system with the same coverage as Duke's current system were in place, fully tested and operational prior to the hot cutover of Duke's system. Given Duke's critical infrastructure and telecommunications needs, Duke would not be able to transition to new frequencies, particularly in the 700 MHz or 900 MHz bands, without a redundant system and without interruption.[7]

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[5] Retuning Duke's system to 700 MHz or 900 MHz would require Duke to replace over 5,000 radios.

[6] *See Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band*, First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking, 11 FCC Rcd 1463 at ¶ 75 (1995).

[7] Although a redundant system is clearly necessary to maintain reliable service and to maintain public safety, the Commission must consider whether a complete system replacement is possible

11. Duke cannot afford to install a new system at its own costs, nor should it be required to do so. If the Commission adopts a plan requiring incumbent 800 MHz operators, such as Duke, to relocate to different channels, the relocation must be funded by someone other than the incumbent licensee, notably the commercial radio operator causing the interference and/or the commercial operator proposing the relocation plan. It is imperative that any plan requiring Duke to transition from its current spectrum assignments must mandate that Duke's critical telecommunications capabilities will not be disrupted during the move.

Interfering Operator(s) Must Bear the Costs of Eliminating Interference to Public Safety Operations

12. It is clear under Section 90.403(e) of the Commission's Rules that Nextel is obligated to correct the harmful interference it is causing to public safety operations. Specifically, Section 90.403(e) provides that "licensees shall take reasonable precautions to avoid causing harmful interference. This includes monitoring the transmitting frequency for communications in progress and such other measures as may be necessary to minimize the potential for causing interference." 47 C.F.R. § 90.403(e). In addition, under the Commission's "first-in-time" policy, the "newcomer" to a frequency must bear the financial and general responsibility for eliminating objectionable interference it causes to an existing station.[8] Where public safety operators were in place prior to when Nextel began operating its current system, Nextel, and Nextel alone, must correct the interference problem.

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given current limitations on access to tower space and the different coverage characteristics of 700 MHz and 900 MHz systems.

[8] *Midnight Sun Broadcasting*, 11 FCC Rcd 1119 (1947).

13. Pursuant to Section 90.173(b) of the Commission's rules, Nextel is required to work with public safety to develop a plan to eliminate any harmful interference it is causing to Public Safety operations. Specifically, Section 90.173(b) provides that:

> licensees of stations suffering or causing harmful interference are expected to cooperate and resolve this problem by mutually satisfactory arrangements. If the licensees are unable to do so, the Commission may impose restrictions including specifying the transmitter power, antenna height, or area or hours of operation of the stations concerned. Further use of any frequency at a given geographical location may be denied when, in the judgment of the Commission, its use at that location is not in the public interest; the use of any frequency may be restricted as to specified geographic areas, maximum power, or such other operating conditions, contained in this part or in the station authorization.

47 C.F.R. § 90.173(b).

14. It is a matter of record that Nextel is causing harmful interference to public safety operations in many jurisdictions.[9] Although in its White Paper Nextel purports to be operating within the FCC's rules, Nextel is in clear violation of Sections 90.173(b) and 90.403 of the Commission's rules as well as the Commission's first-time-in policy. To Duke's knowledge, it believes that its 800 MHz system has never interfered with public safety operations. However, under Nextel's plan, Duke would be required to relocate to new channels at its own costs and bear the financial burden of eliminating the harmful interference caused by Nextel. Nextel's obligation to eliminate harmful interference to public safety operations cannot be foisted upon Duke or other 800 MHz operators when those operators are not contributing to the interference problem.

The Nextel and NAM Realignment Proposals

15. Nextel's realignment proposal cannot be adopted. It impermissibly places on Duke and other incumbent 800 MHz operators the burden of eliminating the interference Nextel is causing

[9] *See Project 39, Interference to Public Safety 800 MHz Radio Systems, Interim Report to the FCC*, Dec. 24, 2001.

to Public Safety operators. As outlined above, Nextel has a fundamental duty as an FCC licensee to operate its system in a manner that does not interfere with other licensed operators. If its operations cause interference to previously existing operations, Nextel must correct the problem or discontinue its operations.[10] Nextel's proposal to foist Nextel's obligation on Duke and others is not acceptable.

16. The proposal submitted by the National Association of Manufacturers and MRFAC, Inc. (NAM Proposal) is attractive as it provides Public Safety with a contiguous 5 MHz spectrum block (851 to 856 MHz) and a contiguous 5 MHz spectrum block (856 to 861 MHz) for Business and Industrial/Land Transportation (I/LT) licensees, thereby creating two blocks of contiguous spectrum that would provide for a smooth migration to future digital radio systems. However, this realignment plan would still adversely impact Duke, which operates on frequencies in the 851 to 856 MHz block, by requiring Duke to re-tune its existing system to new frequencies. As stated above, retuning to new frequencies is acceptable only if Duke is reimbursed for all of its retuning costs and it was assured that its existing operations would not be disrupted.

Conclusion

17. While Duke continues to believe that Nextel is obliged to correct any and all interference it is causing to public safety operations, Duke would support an industry-wide realignment proposal that would eliminate the interference to public safety and provide additional licensing flexibility to critical infrastructure operations, provided the following conditions are met: (1) Duke is not required to purchase new equipment at its own costs, (2) Duke is reimbursed for all

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[10] Duke understands that the interference to public safety operations can be significantly reduced if Nextel were to provide Public Safety operators with modern radios with improved frequency selectivity. Additional interference would be mitigated if all 800 MHz operators, including Nextel, complied with Sections 90.403 and 90.173(b) of the Commission's rules and cooperate in the use of the 800 MHz band.

costs associated with the relocation of its facilities to new frequencies, and (3) the Commission guarantees that Duke's critical telecommunications capabilities are not interrupted during the retune and that redundant systems are fully operational and in place prior to requiring the Duke to cutover to the new facilities.

Respectfully Submitted.

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